

FIG. 1A

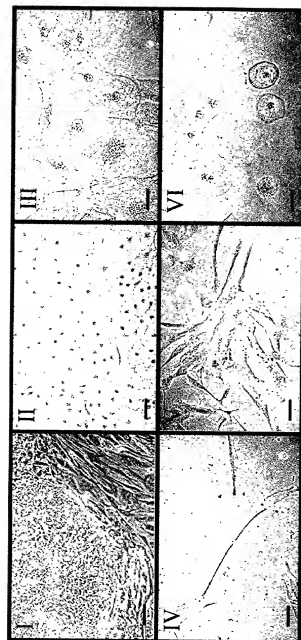


FIG. 1B

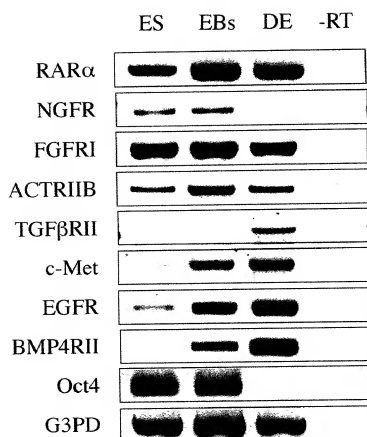


FIG. 2

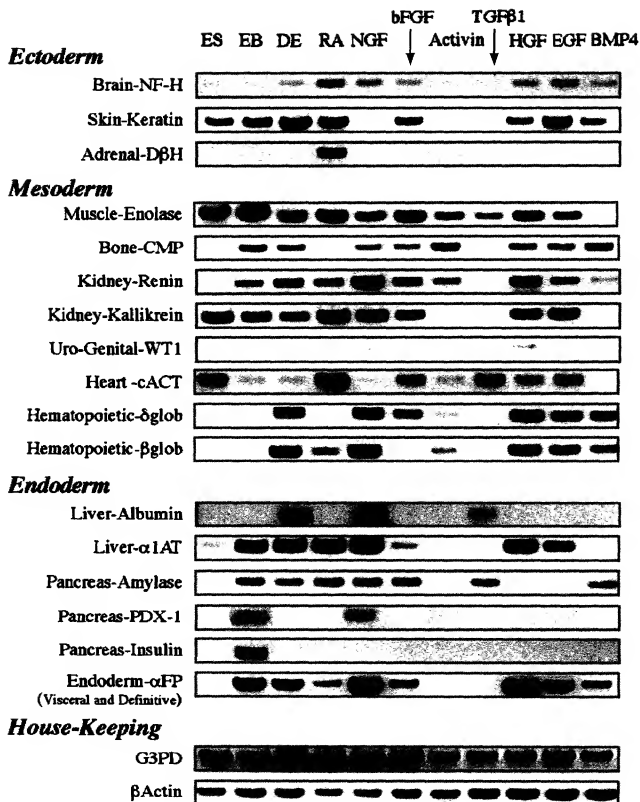


FIG. 3A

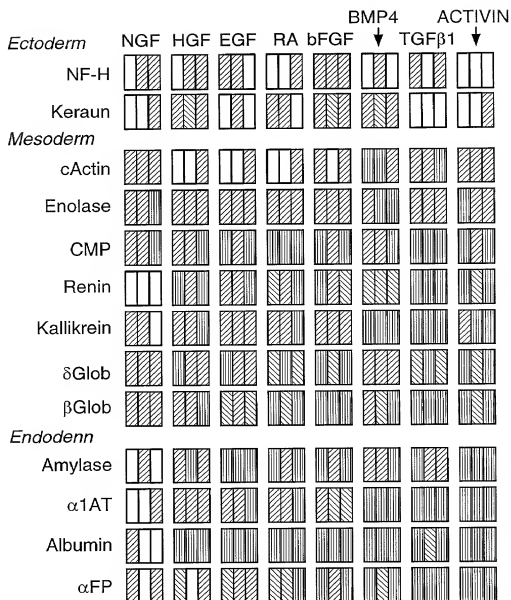
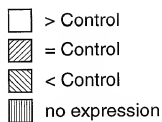
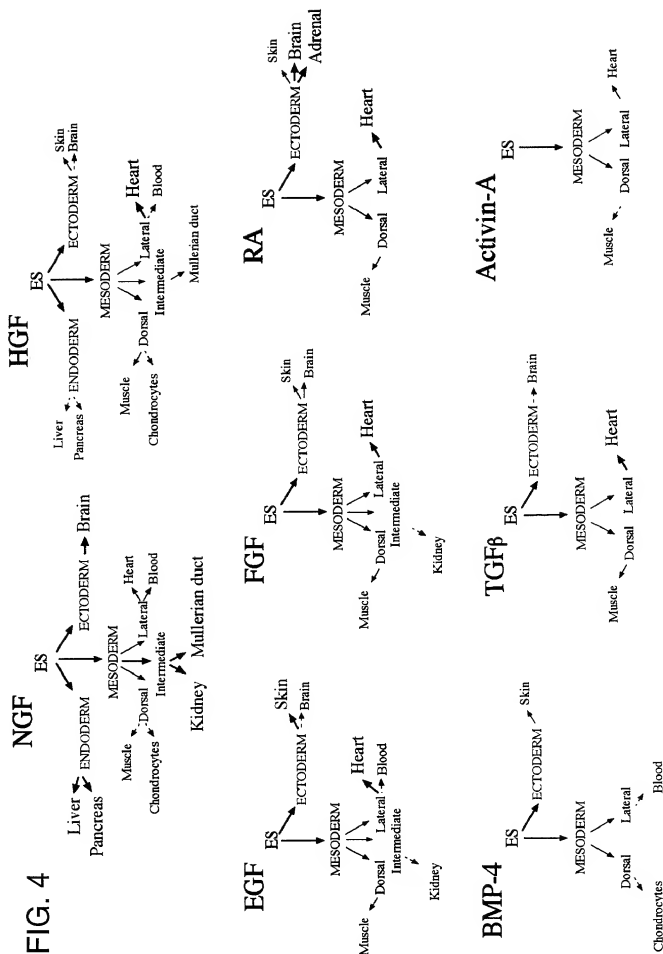


FIG. 3B



Gene	Expected Product	5' Primer	3' Primer
$\alpha$ -feto protein ( $\alpha$ FP)	680bp	AGAACCTGTACAAGCTGTG	CTGAGGATGTC
$\alpha$ 1 anti-trypsin ( $\alpha$ 1AT)	360bp	AGACCCCTTTGAAGTCAAGGACACCG	CCATTGCTGAAGACCTTAGTGATGC
Activin Receptor type IIB (ACTRIIIB)	550bp	ACACGGAGTGCATCTACTACAACG	TTTCATGAGCTGGGCTTCCAGACAC
Albumin	450bp	CCTTTGGCAACATGAAGTGGGTAACC	andCAGCAGTACGCCATTTCCACATAGG
Amylase	490bp	GCTGGGCTCAGTATTCCCCAAATAC	GACGACAACTCTGACCTGAGTAGC
B-Actin	400bp	TGGCACACACCTTCTACAATGAGC	GCACAGCTTCTCTTAATGTTCACGC
$\beta$ -Globin ( $\beta$ -Glob)	410bp	ACCTGACTCTCTGAGGAGAGTCTGC	TAGCCACACCCAGCCACCACTTTCTG
Bone Morphogenic Protein 4 Receptor type II (BMP4RII)	800bp	TCTGCAGCTAGGTGCTCTCATCAGC	TATACTGCTCCATATCGACCTCGGC
Cardiac Actin (cACT)	630bp	TCTATGAGGGCTACGCTTTG	CCTGACTGGAAGGTAGATGG
Cartilage Matrix Protein (OMP)	620bp	ATGACTGTGAGCAGGTGTCATCAG	CTGGTTGATGGTCTTGAAGTCAGCC
$\delta$ -Globin ( $\delta$ -Glob)	430bp	ACCATGGTGCATCTGACTCCTGAGG	ACTTGTGAGCCAAAGGCATTAGCCAC
Dopamine $\beta$ Hydroxylase (D $\beta$ H)	440bp	CACGTACTGGTGCTACATTAAGGAGC	AATGGCCATCACTGGCGTGTACACC
Endolase	490bp	TGACTTCAAGTGCCTGATGATCCC	TGGGTCCAGCAAGGATTGCCCTTGTG
Epidermal Growth Factor Receptor type (EGFR)	300bp	CAGTGTGACGCTGAACATAACATCC	AGTTTGCACCTTGTCCACGCATTCCC
Fibroblast Growth Factor Receptor type I (FGFR1)	410bp	AGCATCATTAATGACTCTGTGTGCC	AGTCCGATAGAGTTACCCGCCAAGC
Follicular Stimulating Hormone (FSH)	320bp	GTGAGCTGACCAACATCACCATTGC	TTTCACCAAGGAGCAGTAGCTGGG
Glucagon	370bp	CTCAGTGATCCTGATCAGATGAACG	AGTCCCTGGCGGCAAGATTATCAAG
Glyceraldehyde 3-phosphate dehydrogenase (G3PD)	890bp	TGAAGGTGCGAGTCAACGGATTTGGT	CATGTGGGCCATGAGGTCCACCCAC
Hepatocyte Growth Factor Receptor (c-Met)	440bp	AGAAATTTCATCAGGCTGTGAAGCGCG	TTCTCTCCGATCGCACACATTTGTGC

FIG. 5A

FIG. 5A	FIG. 5C
FIG. 5B	FIG. 5D

FIG. 5

Insulin	420bp	CTGCATCAGAAAGAGGCOATCAAGC	GGCTTTATTCCATCTCTCTCGGTGC
Kaikkrein	480bp	GTTTCAGTCAGTGAGAGCTTCCAC	TCACATAAGACAGCACTCTGACGGC
Keratin	780bp	AGGAAATCATCTCAGGAGGAGGCG	AAAGCACAGATCTTCGGGAGCTACC
Lipase	400bp	GATTTCATCAAGCATCAGTGGCTCC	CCAA TCGGACTAATTCAGGTGTGCC
Myosin light polypeptide2 (myosin)	400bp	TCCAACGTGTTCTCCATGTTCCGAC	CTTG TAGTCCAAGTTGCCAGTCAAG
Nerve Growth Factor Receptor (NGFR)	410bp	TGTTCTCTCGCCAGGACAAGCAGAAC	TCTTGAAGGCTATGTAGGCCACAAGG
Neurofilament Heavy Chain (NFH)	400bp	TGAACACAGACGCTATGCGCTCAG	CACCTTTATGTGAGTGGACACAGAG
Octamer Binding Protein 4 (Oct4)	140bp	CGPAAAGCTGGAGAAAGGAGAAGCTG	CAAGGGCCGAGCTTACACATGTTCT
Parathyroid Hormone (PTH)	290bp	GGCTAAAGTTATGATTGTCATGTTGGC	TCAGCTTTGTCTGCCTCTCCAAAGAC
PDX-1	230bp	GGATGAAGTCTACCAAGCTCAGCG	CCAGATCTTGATGTGTCTCTCGGCT
Phosphoprotein enriched in astrocytes(PEA-15)	820bp	AGAGTGAGGAGATCACTACTGGGAG	ACCTGCTGGTACTCAGGAAACAGTCT
Renin	590bp	AGTCGCTTTTGACACTGGTTCGTCC	GGTAGAACCTGAGATGTAGGATGTC
Retinoic Acid Receptor type alpha (RAR)	500bp	AGCAGCAGTTCTGAAGAGATAGTGCC	GTGGAGAGTTCACTGAACCTTGTCCC
Surfactant	460bp	TCCAGCTCATCTAGATGAGGAGCTC	GTCOCATGGCCTAAATGCCTCTCAG
Transforming Growth Factor Receptor type II (TGFR II)	530bp	TAGTCACTGACACAACGGGTGCAGTC	ACAGTGCTCGCTGAACTCCATGAGC
WT1	450bp	TCCTTCATCAAAACAGGAGCCGAGC	CTGTAGGGCGTCTCTCAGCAGCAAAAG

FIG. 5B

Gene	5' Primer	3' Primer
$\alpha$ -feto protein ( $\alpha$ FP)	SEQ ID NO: 4	SEQ ID NO: 5
$\alpha$ 1 anti-trypsin ( $\alpha$ 1AT)	SEQ ID NO: 6	SEQ ID NO: 7
Activin Receptor type IIB (ACTRIIB)	SEQ ID NO: 8	SEQ ID NO: 9
Albumin	SEQ ID NO: 10	SEQ ID NO: 11
Amylase	SEQ ID NO: 12	SEQ ID NO: 13
B-Actin	SEQ ID NO: 14	SEQ ID NO: 15
$\beta$ -Globin ( $\beta$ -Glob)	SEQ ID NO: 16	SEQ ID NO: 17
Bone Morphogenic Protein 4 Receptor type II (BMP4RII)	SEQ ID NO: 18	SEQ ID NO: 19
Cardiac Actin (cACT)	SEQ ID NO: 20	SEQ ID NO: 21
Cartilage Matrix Protein (OMP)	SEQ ID NO: 22	SEQ ID NO: 23
$\delta$ -Globin ( $\delta$ -Glob)	SEQ ID NO: 24	SEQ ID NO: 25
Dopamine $\beta$ Hydroxylase (D $\beta$ H)	SEQ ID NO: 26	SEQ ID NO: 27
Enolase	SEQ ID NO: 28	SEQ ID NO: 29
Epidermal Growth Factor Receptor type (EGFR)	SEQ ID NO: 30	SEQ ID NO: 31
Fibroblast Growth Factor Receptor type I (FGFR1)	SEQ ID NO: 32	SEQ ID NO: 33
Follicular Stimulating Hormone (FSH)	SEQ ID NO: 34	SEQ ID NO: 35
Glucagon	SEQ ID NO: 36	SEQ ID NO: 37
Glyceraldehyde 3-phosphate dehydrogenase (G3PD)	SEQ ID NO: 38	SEQ ID NO: 39
Hepatocyte Growth Factor Receptor (c-Met)	SEQ ID NO: 40	SEQ ID NO: 41

FIG. 5C



Insulin	SEQ ID NO: 42	SEQ ID NO: 43
Kalikrein	SEQ ID NO: 44	SEQ ID NO: 45
Keratin	SEQ ID NO: 46	SEQ ID NO: 47
Lipase	SEQ ID NO: 48	SEQ ID NO: 49
Myosin light polypeptide2 (myosin)	SEQ ID NO: 50	SEQ ID NO: 51
Nerve Growth Factor Receptor (NGFR)	SEQ ID NO: 52	SEQ ID NO: 53
Neurofilament Heavy Chain (NFH)	SEQ ID NO: 54	SEQ ID NO: 55
Octamer Binding Protein 4 (Oct4)	SEQ ID NO: 56	SEQ ID NO: 57
Parathyroid Hormone (PTH)	SEQ ID NO: 58	SEQ ID NO: 59
PDX-1	SEQ ID NO: 60	SEQ ID NO: 61
Phosphoprotein enriched in astrocytes(PEA-15)	SEQ ID NO: 62	SEQ ID NO: 63
Renin	SEQ ID NO: 64	SEQ ID NO: 65
Retinoic Acid Receptor type alpha (RAR)	SEQ ID NO: 66	SEQ ID NO: 67
Surfactant Transforming Growth Factor Receptor type II (TGFRII)	SEQ ID NO: 68	SEQ ID NO: 69
WT1	SEQ ID NO: 70	SEQ ID NO: 71
	SEQ ID NO: 72	SEQ ID NO: 73

FIG. 5D

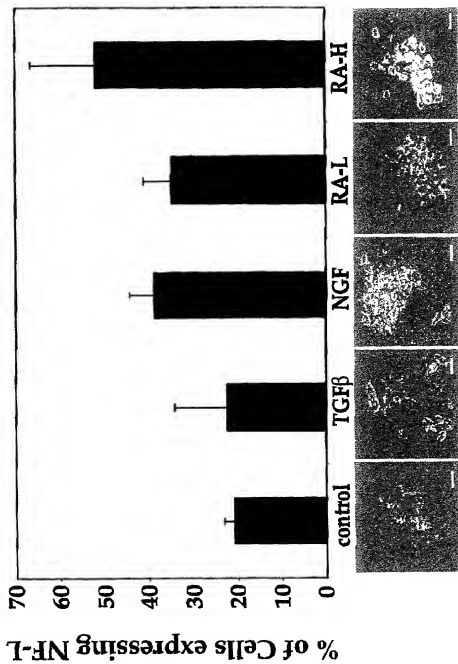


FIG. 6

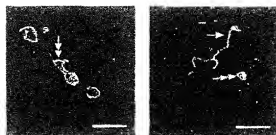


FIG. 7A

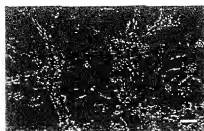
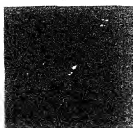


FIG. 7B

Low  
Complexity



Medium  
Complexity



High  
Complexity



FIG. 7C

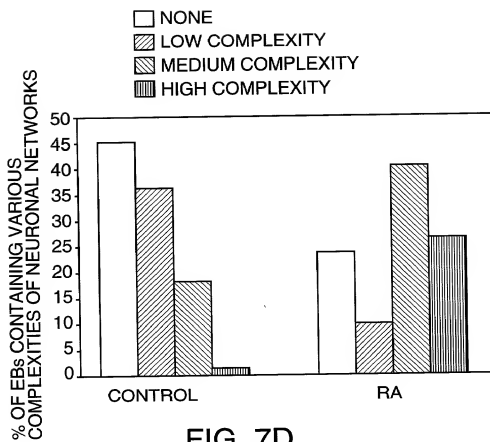


FIG. 7D

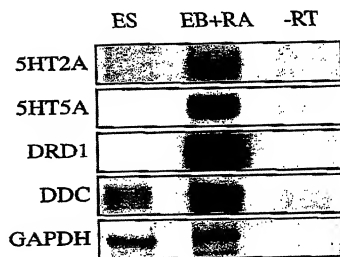


FIG. 8